DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-016372 Address: 333 Burma Road **Date Inspected:** 22-Aug-2010

City: Oakland, CA 94607

OSM Arrival Time: 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Chen Shi Gang. No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, Amit K. Juvekar, was present during the times noted above for observations relative to the work being performed.

Subassembly, Bay 04, Deck Panel 14E-DP3161(PL3437A)-001.

This QA inspector performed conventional Ultrasonic Testing (UT) Inspection on deck panel tack weld areas. The inspection is preliminary prior to using the phased array (PAUT) testing system to verify indications found with conventional Ultrasonic testing. QA inspector performed UT on deck panel DP3161(PL3437A)-001, 4 ribs, 8 welds, 188 total tack welds inspected.

Weld 1 scanned 24 locations with 2 indication.

Weld 2 scanned 23 locations with no indications.

Weld 3 scanned 23 locations with no indications.

Weld 4 scanned 24 locations with 1 indication.

Weld 5 scanned 24 locations with no indications.

Weld 6 scanned 23 locations with no indications.

Weld 7 scanned 23 locations with no indication.

Weld 8 scanned 24 locations with no indications.

Subassembly, Bay 04, Deck Panel 14E-DP3161(PL3437B)-001.

This QA inspector performed conventional Ultrasonic Testing (UT) Inspection on deck panel tack weld areas. The inspection is preliminary prior to using the phased array (PAUT) testing system to verify indications found

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with conventional Ultrasonic testing. QA inspector performed UT on deck panel DP3161(PL3437B)-001, 4 ribs, 8 welds, 64 total tack welds inspected.

Weld 9 scanned 8 locations with 1 indication.

Weld 10 scanned 8 locations with no indications.

Weld 11 scanned 8 locations with 2 indications.

Weld 12 scanned 8 locations with no indication.

Weld 13 scanned 8 locations with no indications.

Weld 14 scanned 8 locations with 1 indications.

Weld 15 scanned 8 locations with 1 indication.

Weld 16 scanned 8 locations with no indications.

Subassembly, Bay 04, 13BE, Deck panel to U-rib.

During Random Visual in process Inspection, this QA inspector observed ZPMC personnel carrying out Weld repairs after visual testing on Deck panel to U-rib welds of Deck Panel DP3086-001. Repair carried out with Flux core arc welding (FCAW). Welder is identified as 203805; ZPMC Quality Control Inspector (QC) is identified as Yang Bai Qian. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-345-FCAW-2G(2F)-FCM-REPAIR.

Welds & Approximate Y-locations of repair were;

W116 - 50, 1150mm.

W111 - 50mm.

W003 - 650 mm.

W005 - 650 mm.

Subassembly, Bay 04, 13CE, Deck Panel U-ribs.

During Random Visual in process Inspection, this QA inspector observed ZPMC NDT personnel "Yuan Tao" carrying out Magnetic Particle Testing (MT) on Deck panel to U-rib welds. Deck Panel identified as DP3104-001. The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 1500.042.2372, who represents the Office of Structural Materials for your project.

Inspected By:	Juvekar, Amit	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer